

***LineUp With Math™* Alignment**
Priority Academic Student Skills
Process Standards

Process Standard 1: Problem Solving

1. Develop and test strategies to solve practical, everyday problems which may have single or multiple answers.	<i>LineUp With Math™</i> Activities --Explore and apply a variety of strategies to optimize the solution of air traffic control conflicts.
3. Formulate problems from situations within and outside of mathematics and generalize solutions and strategies to new problem situations.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. --Explore and apply a variety of strategies to optimize the solution of air traffic control conflicts.
5. Apply a variety of strategies (e.g., restate the problem, look for a pattern, diagrams, solve a simpler problem, work backwards, trial and error) to solve problems, with emphasis on multistep and nonroutine problems.	--Choose and apply a variety of strategies to optimize the solution of air traffic control conflicts.
6. Use oral, written, concrete, pictorial, graphical, and/or algebraic methods to model mathematical situations.	--Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.

Process Standard 2: Communication

1. Discuss, interpret, translate (from one to another) and evaluate mathematical ideas (e.g., oral, written, pictorial, concrete, graphical, algebraic).	<i>LineUp With Math™</i> Activities --Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.
2. Reflect on and justify reasoning in mathematical problem solving (e.g., convince, demonstrate, formulate).	--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.

Process Standard 3: Reasoning

1. Identify and extend patterns and use experiences and observations to make suppositions.	<i>LineUp With Math™</i> Activities --Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. --Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.
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Process Standard 4: Connections	
1. Apply mathematical strategies to solve problems that arise from other disciplines and the real world.	<i>LineUp With Math™ Activities</i> --Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
Process Standard 5: Representation	
1. Use a variety of representations to organize and record data (e.g., use concrete, pictorial, and symbolic representations).	<i>LineUp With Math™ Activities</i> --Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.
2. Use representations to promote the communication of mathematical ideas (e.g., number lines, rectangular coordinate systems, scales to illustrate the balance of equations).	--Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.
4. Use a variety of representations to model and solve physical, social, and mathematical problems (e.g., geometric objects, pictures, charts, tables, graphs).	--Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.